O I P E
JUN 18 2004
PATENT & TRADEMARK OFFICE
JC39

SUPPORT FOR BLIND CASES

DESCRIPTION

OBJECT OF THE INVENTION

This invention refers to a support specially designed to attach a blind case to the underside of a floor/ceiling vault or other kind of wall, making up for the possible dimensional differences in height that may exist between such elements, such as for example, the differences in the height of ceilings in various buildings; a support which also conveniently allows protection of the outer side of the case against strong impacts or blows, without having a negative repercussion on the occupation of space which might create problems due to the case jutting into the inside of the room.

This universal support, which may be adapted to cases of varying width and height, also helps to camouflage the blind case on the façade with a slat-like design, so that the case is camouflaged with the blind itself.

The object of the invention is to achieve a support with the maximum possible structural rigidity, while also allowing access to the case during installation of same.

BACKGROUND TO THE INVENTION

It is becoming increasingly common for each window with its corresponding blind to form a single case which is installed in a single operation on the corresponding indoor or outdoor wall.

Generally speaking, these window-blind cases are designed so that the upper base of the blind case rests on the floor/ceiling vault of the building and is conveniently attached to same.

However, in practice, there are significant differences in the distance between floor/ceiling vaults, so that the blind case must often be left at a considerable distance from the said floor/ceiling vault as well as at variable

magnitudes, which leads to two problems: on the one hand, the case may not be properly installed directly on the floor/ceiling vault, i.e. on the ceiling, and on the other hand, it is necessary to carry out complementary operations to finish the façades, in order to fill in the space defined between the cases and the ceiling, which sometimes affects the aesthetic appearance of the façade, as well as creating significant operational difficulties.

Another problem, even when the case may be adapted and attached directly to the ceiling, consists of the fact that the front or outer wall of the case is completely unprotected against possible impacts from outside both during the installation and afterwards (strong winds, hail, etc).

The applicant holds Spanish utility model with application number 200200289, consisting of a support for blind cases that solves the aforementioned problems, whereby the support is formed by the functional combination of two parts, specifically two "L" profiles, one of which is designed so that one of its axes is screwed or attached in another appropriate manner to the underside of the floor/ ceiling vault and the other covers most of the front side of the case, while the other is intended to simply “fit into” the former, by means of a deep groove on the former, into which one of the axes of the second profile fits telescopically, allowing it to be adapted to various case widths, while its other axis is partially adapted to the innerside of the case, establishing continuity with same regardless of the distance existing between the upper base of the case and the floor/ ceiling vault.

This solution no doubt presents a problem of instability for the second “L” profile, as it must be left free, as if we were to attempt to attach it to the floor/ceiling vault, for example, by screwing, its vertical axis would not allow the case to be installed in the correct place.

DESCRIPTION OF THE INVENTION

The support proposed by this invention maintains the features of the aforementioned utility model and fully solves the aforementioned problems, ensuring correct attachment to the floor/ceiling vault and very easy installation of the case inside such support.

In doing so, to be more specific and in accordance with one of the characteristics of the invention, the outer "L" profile includes, instead of the aforementioned groove, several buffers on the innerside of what should be its horizontal or upper axis which, in collaboration with a buffer (10) established on the corresponding edge of the second profile, allow the establishment of any relative position between both profiles to suit any case width, after which both profiles are screwed to the floor/ ceiling vault or wall in question and thereafter remain perfectly still.

In order that the vertical axis of the second profile may not be an obstacle when installing the case, the design provides that the second profile be split in two halves, one for attachment to the aforementioned floor/ ceiling vault or wall and the other forming its vertical skirt, knuckle-jointed to the former so that the vertical skirt may be lowered to a horizontal position when installing the case and after the case has been installed, may be swung downwards to be adapted to the innerside of such case.

For the knuckle-joint between the two sectors of the second profile, there is a groove on the upper edge of the vertical skirt, significantly more than a semi-cylinder, while the corresponding edge of the horizontal sector has a cylindrical ridge on top of a brattice that connects it to the rest of the profile, whereby the brattice is conveniently placed so as to allow the skirt or second sector of the profile to swing through two limit situations at 90° angles.

In accordance with another of the characteristics of the invention, the design provides that both the groove on the skirt and the ridge on the first sector of this second profile are not exactly cylindrical, but slightly elliptical, so that

in the maneuver to swing the skirt upwards, the joint is jammed to maintain the skirt in a stable open position while the case is being installed, thereby leaving the worker both hands free, and that after the case is installed, the skirt should be pulled manually into its final vertical position.

Finally and in accordance with another of the characteristics of the invention, there are longitudinal, narrow-mouthed grooves on the outer ends of the upperside of the support, where the respective seals may be placed between the support and the floor/ceiling vault or floor in question, while there is another similar groove on the inside of the vertical skirt and beside its lower, free edge, for a third seal, in this case, to seal the case itself.

DESCRIPTION OF THE DRAWINGS

In order to complement the description being made and with a view to allowing for a better understanding of the characteristics of the invention in accordance with an example of the preferred embodiment of same, a set of drawings are attached as an integral part of such description, representing the following in an illustrative and non-restrictive manner:

Figure 1.- Shows a section detail of the profile which is part of the support for blind cases, the object of the present invention.

Figure 2.- Shows a section of the first sector which is part of the second "L" profile.

Figure 3.- Shows a section detail of the second sector of the second "L" profile, i.e. the sector which complements the sector represented in Figure 2.

Figure 4.- Shows a section detail of the joint between the two sectors of the second "L" profile, showing in heavy and dotted lines the two relative extreme positions the latter may adopt.

Figure 5.- Shows a schematic side elevation view of a blind case properly attached to the floor/ceiling vault of a building using the support shown in the previous figures.

Figure 6.- Finally, according to a representation that is similar to the previous figure, shows the same structure as in the aforementioned figure, but in the case of a greater distance between the case and the floor/ceiling vault and for a wider blind case.

PREFERRED EMBODIMENT OF THE INVENTION

In the aforementioned figures, (1) refers to the floor/ceiling vault of the building and (2) refers to the blind case which has been represented in an entirely schematic fashion, without any components other than the axis (3) to turn the blind around and the opening (4) that allows the blind to go outside, whereas it is evident that such case should include other components, such as an inner door for access to its mechanisms, a pulley to drive the axis (3) by means of a tape, cord, cable or similar, etc.

The width of the case (2) may vary according to the height of the blind and therefore to the diameter of same when rolled up inside the case and similarly, the distance between the aforementioned case (2) and the floor/ceiling vault (1) may also vary according to the height of the storeys, as has been graphically shown in figures 5 and 6.

Therefore, the support proposed in this invention is formed of a main profile (5), whose general configuration is an "L" shape, made of aluminum, for example, and whose horizontal axis (6) is designed to be adapted to the ceiling or the innerside of the floor/ceiling vault (1), being fitted to same with screws (7) or any other appropriate means, while its vertical axis, which corresponds to reference (5), constitutes a prolonging skirt that goes down the general front plane of the façade, a skirt which extends as far as the front or lower edge of the case (2), which it should for the most part cover.

The main or first profile (5) includes on the innerside of its horizontal axis, several buffers (8) for attachment to the second profile (9) or auxiliary profile, so that these buffers (8) allow to selectively situate a ridge or protrusion

(10) on the top of the corresponding edge on the auxiliary profile (9), in order to match the combined contour height of both profiles to the width of different cases, as may be seen by comparing figures 5 and 6. After selecting the relative positioning between profiles (5) and (9), the latter may also be attached to the floor/ceiling vault (1) using screws (11) or other appropriate means, preferably by means of small longitudinal drawings (12) which would improve support of the profile on the floor/ceiling vault (1).

The auxiliary profile (9) is split into two physically independent sectors: one upper, horizontal sector, corresponding to reference (9) itself and another sector (13), determining a vertical skirt intended to be adapted to the innerside of the case (2).

These two sectors (9-13) are knuckle jointed together and therefore, the inner edge of the horizontal sector (9) includes a brattice in the form of a hook (14), with a ridge (15) tending towards a cylindrical shape, while the upper edge of the skirt (13) in turn has a narrow-mouthed groove (16), also tending towards a cylindrical shape, so that the non-cylindrical configuration of the ridge (15) and the groove (16) means that the joint between elements (15) and 16) is jammed when lifting the skirt and placing it parallel to the upper sector (9) , thus maintaining the skirt (3) stable in the open position showed by the dotted lines in figure 4, thereby leaving the worker both hands free when installing the blind (2) in its final location.

The main profile (5) includes beside the outer edge of its upper axis (6) a narrow-mouthed groove (17) which is open on the outside, whereas another similar groove (18) is situated beside the inner edge of the first sector (9) of the auxiliary profile, for the purposes of receiving two rubber seals which, after the profiles are attached, are perfectly adapted to the floor/ ceiling vault (1), leaving the latter fully sealed.

Furthermore, on the innerside of the skirt (13) and beside its inner edge, there is another narrow-mouthed groove (19) which receives a similar seal for tightness on the innerside of the case (2).